

## WHAT IS CLAIMED IS:

1. A picture display device in a mobile terminal, comprising:
  - a direction detecting section for detecting the direction in which the mobile  
5 terminal is placed and generating first, second, third and fourth direction detecting signals;
  - a display controller for outputting display data in an upright direction when a first direction detecting signal is generated, in a direction turned 90° clockwise when a second direction detecting signal is generated, in a direction turned 180° when a third  
10 direction detecting signal is generated, or in a direction turned 270° clockwise when a fourth direction detecting signal is generated; and
  - a display section for displaying the display data.
2. The picture display device according to claim 1, wherein said direction  
15 detecting section comprises:
  - a guide chamber having first, second, third and fourth extending portions corresponding respectively to the first, second, third and fourth directions;
  - a magnet disposed within the guide chamber and moving to any of the first, second, third and fourth extending portions according to the direction in which the  
20 mobile terminal is placed; and
  - first, second, third and fourth Hall sensors positioned adjacent to the ends of the first, second, third and fourth extending portions to detect a magnetic field emitted from the magnet and generate corresponding first, second, third and fourth direction detecting signals.  
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3. The picture display device according to claim 1, wherein said direction detecting section is mounted in a folder housing of the mobile terminal.
4. The picture display device according to claim 1, wherein said direction  
30 detecting section is mounted in a main housing of the mobile terminal.

5. A picture display device in a mobile terminal comprising:  
a camera module for taking an image signal;  
an image processing section for processing the image signal taken by the camera module in a display picture size;
- 5 a direction detecting section for detecting the direction in which the mobile terminal is placed and generating first, second, third and fourth direction detecting signals;
- a display controller for outputting display data in an upright direction when a first direction detecting signal is generated, in a direction turned 90° clockwise when a  
10 second direction detecting signal is generated, in a direction turned 180° when a third direction detecting signal is generated, or in a direction turned 270° clockwise when a fourth direction detecting signal is generated; and  
a display section for displaying the display data.
- 15 6. A picture display device in a mobile terminal comprising:  
a tuner for receiving a composite television video signal broadcast on a selected channel;  
a decoder for decoding the composite video signal to generate an analog video signal and a synchronizing signal;
- 20 a video processing section for converting the analog video signal into a digital video data, processing the digital video data in a frame size and outputting a frame video signal and user data in the frame;
- a direction detecting section for detecting the direction in which the mobile terminal is placed and generating first, second, third and fourth direction detecting  
25 signals;
- a display controller for outputting display data in an upright direction when a first direction detecting signal is generated, in a direction turned 90° clockwise when a second direction detecting signal is generated, in a direction turned 180° when a third direction detecting signal is generated, or in a direction turned 270° clockwise when a  
30 fourth direction detecting signal is generated; and  
a display section for displaying the display data.

7. A method for displaying a picture on a mobile terminal, comprising the steps of:

detecting the direction in which the mobile terminal is placed;

outputting and displaying display data in an upright direction when a first  
5 direction is detected;

outputting and displaying the display data in a direction turned 90° clockwise  
when a second direction is detected;

outputting and displaying the display data in a direction turned 180° when a  
third direction is detected; and

10 outputting and displaying the display data in a direction turned 270° clockwise  
when a fourth direction is detected.

8. A method for displaying a picture on a mobile terminal, comprising the steps of:

15 detecting the direction in which the mobile terminal is placed;

outputting and displaying display data in an upright direction when a first  
direction is detected;

generating full size display data and displaying the display data in a direction  
turned 90° clockwise when a second direction is detected;

20 outputting and displaying the display data in a direction turned 180° when a  
third direction is detected; and

generating full size display data and displaying the display data in a direction  
turned 270° clockwise when a fourth direction is detected.